

REMARKS

Applicant appreciates the Examiner's thorough consideration provided in the present application. Claims 1-12 are currently pending in the instant application. Claims 1-4 have been amended and claims 5-12 have been added for the Examiner's consideration. Claims 1, 2, 4, 6 and 10-12 are independent.

The subject matter of additional claims 5-12 is fully supported by the original written description, including but not limited to, claims 1-4, FIGs. 3(a)-3(b) and the supporting description found on pages 8-10 of the present application.

Priority

Applicant appreciates the Examiner's indication of acceptance of the corresponding certified priority document for the present application.

Drawings

The Examiner has objected to the drawings due to the presence of alleged informalities with the claims. This objection is respectfully traversed.

Applicant has amended FIG. 2 as requested by the Examiner and has enclosed one (1) replacement sheet of formal drawings incorporating the

requested change. Accordingly, this objection has been obviated and/or rendered moot.

Specification

The title of the invention has been objected to by the Examiner. This objection is respectfully traversed. As requested by the Examiner, Applicant has amended the title of the invention to read Camera for Automatically Adjusting Image Brightness for an Image on a Display. Accordingly, this objection has been obviated and/or rendered moot.

Claim Objections

Applicant appreciates the Examiner's assistance with respect to the claims. Claims 2 and 4 have been objected to as allegedly containing minor informalities. This objection is respectfully traversed.

In light of the foregoing amendments to the claims, Applicant respectfully submits that these rejections have been obviated and/or rendered moot. However, Applicant respectfully submits that the foregoing amendments have been made to merely clarify the minor informalities identified by the Examiner.

Without conceding the propriety of the Examiner's rejections, but merely to timely advance the prosecution of the application, Applicant has

incorporated the changes recommended by the Examiner. However, Applicant submits that the requested changes do not appear to either raise a substantial question of the patentability of the claimed invention nor do they narrow the scope of the claimed invention.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-4 have been rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Lee (U.S. Patent No. 5,546,134). This rejection is respectfully traversed.

In light of the foregoing amendments to the claims, Applicant respectfully submits that all of the rejections have been obviated and/or rendered moot. Without conceding the propriety of the Examiner's rejection, but merely to expedite the prosecution of the present application, Applicant has amended claims 1, 2 and 4 to clarify the claimed invention for the benefit of the Examiner. However, Applicant submits that this claim has been amended to merely explicitly state those features that were already implicitly claimed in the original claims. Accordingly, this rejection has been obviated and/or rendered moot.

Specifically, Applicant submits that the prior art of record fails to teach or suggest each and every limitation of the unique combination of limitations of

the claimed invention. With respect to claim 1, Applicant submits that the prior art of record fails to teach or suggest each and every limitation of the unique combination of limitations of the claimed invention, including the feature(s) of: "wherein the camera automatically corrects the video signals according to the determined brightness level without lowering an SN ratio." Accordingly, this rejection should be withdrawn.

With respect to claim 2, Applicant submits that the prior art of record fails to teach or suggest each and every limitation of the unique combination of limitations of the claimed invention, including the feature(s) of: "a correcting part that automatically corrects the video signals according to the correction amount determined by the correction amount determining part, wherein the video signals are corrected according to the determined brightness level from the brightness determining part without lowering an SN ratio." Accordingly, this rejection should be withdrawn.

With respect to claim 4, Applicant submits that the prior art of record fails to teach or suggest each and every limitation of the unique combination of limitations of the claimed invention, including the feature(s) of: "a gain controlling part that controls a gain of the variable gain amplifier according to the brightness level of the video signals, wherein the gain of the variable gain amplifier is controlled to an optimum gain value falling within an effective gain

range and which does not permit a lowering of an SN ratio.” Accordingly, this rejection should be withdrawn.

In the claimed invention, automatic adjustment of the brightness of an image displayed on a displaying device without lowering an SN ratio is a unique characteristic heretofore not taught or described in the prior art of record. The Examiner is requested to review both embodiments described in the present application in greater detail in connection with FIGs. 1 and 4; and FIGs. 5-6.

Without conceding the propriety of the Examiner’s rejection, but merely to expedite the prosecution of the present application, Applicant has amended 1 and 2 to clarify the claimed invention for the benefit of the Examiner. Specifically, the claimed invention of claims 1 and 2 includes automatic adjustment of the brightness of an image without lowering an SN ratio.

With respect to claim 4, the feature of automatic adjustment of the brightness of an image without lowering an SN ratio is also a unique feature of the claimed invention. Accordingly, this rejection has been obviated and/or rendered moot.

With respect to additional claims 6-9, the use of a variable gain amplifier by Lee is different than the variable gain amplifier described in the claimed invention. In addition, Lee does not teach or suggest the elements of the image processing circuit and the use of the EEPROM to look up a correction value.

With respect to additional claims 8 and 9, the variable gain amplifier (element 50 in FIG. 6) of Lee is positioned after the A/D converter (element 10 in FIG. 6), and the variable gain amplifier in the claimed invention is positioned before the A/D converter (see FIG. 6 of the present application).

In Lee, an image enhancement circuit adaptively controls the brightness and contrast of a video input signal according to its average brightness level. The circuit calculates the average brightness level during a predetermined period with respect to a video signal to be input through an input terminal and controls the brightness and contrast of the video input signal according to the calculated average brightness level (see Abstract, FIG. 3 and supporting discussion of Lee at col. 3, lines 23-35). Applicant submits that this gradation technique suffers from distinct disadvantages that are addressed by the unique combination of limitations of the claimed invention (see page 1 and page 2 of the present application).

In Lee, if the inputted signal is relatively low, the output level is limited to a maximum of the input level (see dotted lines in FIG. 3 of Lee extending from m-m). Accordingly, if the input level is low, the resulting display based on the average brightness level of the inputted signal will be relatively dark. In contrast, and as seen in FIGs. 3(a) and 3(b) of the present application, the claimed invention of claim 10 provides a correction signal (offset) which raises

the brightness levels of the video signal (see FIG. 3(b)) if the brightness levels of the video signal are low (as shown in FIG. 3(a)).

We also note that the description provided at pages 8-9 (first embodiment) and page 10, line 19 through page 12 would also support two sets of method claims. Therefore, we suggest adding method claims in response to this office action if protection for the methods described at pages 8-12 is desired in this patent application.

Accordingly, reconsideration and withdrawal of the claim rejections are respectfully requested. As to the dependent claims, Applicant respectfully submits that these claims are allowable due to their dependence upon an allowable independent claim, as well as for additional limitations provided by these claims.

CONCLUSION

Since the remaining references cited by the Examiner have not been utilized to reject the claims, but merely to show the state-of-the-art, no further comments are deemed necessary with respect thereto.

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Matthew T. Shanley, Registration No. 47,074 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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